

---

**SENATE COMMITTEE ON ENVIRONMENTAL QUALITY**

**Senator Allen, Chair**

**2021 - 2022 Regular**

---

**Bill No:** SB 230  
**Author:** Portantino  
**Version:** 1/19/2021  
**Urgency:** No  
**Consultant:** Gabrielle Meindl

**Hearing Date:** 3/15/2021  
**Fiscal:** Yes

**SUBJECT:** State Water Resources Control Board: Constituents of Emerging Concern Program

**DIGEST:** This bill would require the State Water Resources Control Board (State Water Board) to establish, maintain, and direct an ongoing Constituents of Emerging Concern (CEC) Program to assess the state of information and recommend areas for further study on the occurrence of CEC in drinking water.

**ANALYSIS:**

Existing law:

- 1) Requires, pursuant to the federal Safe Drinking Water Act (SDWA) and California SDWA, drinking water to meet specified standards for contamination (maximum contaminant levels (MCLs)) as set by the United States Environmental Protection Agency (US EPA) or the State Water Board. (Health & Safety Code (HSC) § 116270, et seq.)
- 2) Requires a public water system, within 30-days of detection of a contaminant in exceedance of an MCL, notification level (NL), or a response level (RL), to provide notification to its governing body of the detection. (HSC § 116455)
- 3) Requires the US EPA to establish criteria for a program to monitor unregulated contaminants and publish a list of up to 30 contaminants to be monitored every five years, known as the federal Unregulated Contaminant Monitoring Rule (UCMR). (42 United States Code § 300(f))
- 4) Establishes the policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. (Water Code § 106.3)
- 5) Requires the State Water Board to administer provisions relating to the regulation of drinking water to protect public health, including conducting

research, studies, and demonstration projects relating to the provisions of a dependable, safe supply of drinking water. (HSC §116350)

- 6) Requires the State Water Board to adopt regulations to implement the SDWA, including, but not limited to, the monitoring of contaminants, including the type of contaminant, frequency and method of sampling and testing, and the reporting of results, as well as the monitoring of unregulated contaminants for which drinking water standards have not been established by the department. (HSC §116375)

This bill:

- 1) Requires the State Water Board to establish the Constituents of Emerging Concern (CEC) Program to assess information on and make recommendations regarding areas for further study related to: the occurrence of CEC in drinking water sources and treated drinking water; the fate, transport, and biodegradation of these constituents; water treatment and laboratory analyses; and the potential public health effects.
- 2) Requires the State Water Board to convene a Science Advisory Panel for CEC in drinking water sources and treated drinking water.
- 3) Specifies that the panel include at least seven members comprised of experts from the fields of public health sciences, water and wastewater engineering, toxicology, epidemiology, chemical sciences, and biological sciences.
- 4) Requires the panel review and provide recommendations to the State Water Board on CEC for further action.
- 5) Specifies that the State Water Board may adjust the panel membership numbers and composition, as necessary.
- 6) Specifies that the panel's advisory duties *may* include all of the following activities, at the State Water Board's request, in consultation, as needed, with the Office of Environmental Health Hazard Assessment (OEHHA) and the Department of Toxic Substances Control (DTSC):
  - a) Review existing data for CEC collected by the State Water Board and nationwide by the United States Environmental Protection Agency's Unregulated Contaminant Monitoring Rule Program and recommend to the

State Water Board further actions based on state-specific conditions and the state's constituent of emerging concern initiatives.

- b) Identify CEC candidates based on potential public health effects;
  - c) Incorporate recommendations from other ongoing state efforts evaluating CEC;
  - d) Evaluate and recommend a framework for standardizing and validating detection methods, new screening methods, monitoring approaches, and reporting procedures for CEC;
  - e) Recommend a framework for a risk-based screening program for CEC and appropriate indicators and surrogates that consider their occurrence in drinking water sources and treated drinking water supplies, contribution and fate in the environment, and potential for human exposure;
  - f) Recommend a process to ensure CEC data is integrated with existing state databases;
  - g) Review the results of any screening program and provide recommendations to assist the State Water Board in prioritizing, monitoring, and making regulatory determinations for CEC; and
  - h) Require the State Water Board to provide an annual report to the Legislature on the ongoing work conducted by the panel.
- 7) States that nothing in these provisions duplicates, changes, or interferes with the State Water Board's ongoing efforts on CEC in Recycled Water.
  - 8) Specifies that if the State Water Board imposes CEC monitoring requirements based on the recommendations of the panel, the State Water Board may provide financial assistance, upon appropriation by the Legislature for this purpose, to any public water system upon a showing that the costs associated with testing drinking water in compliance with those requirements would impose a financial hardship. Requires these funds be dedicated for use public water systems serving fewer than 10,000 individuals located in disadvantaged communities.
  - 9) Makes findings that the program is intended to help inform the State Water Board in making regulatory determinations for CEC and is not intended to supersede any requirements related to setting a maximum contaminant level or public health goal.
  - 10) Establishes the CEC Action Fund in the State Treasury and directs the State Water Board to administer the Fund.
  - 11) Specifies that that monies in the Fund be used, upon appropriation by the Legislature, to support costs associated with:

- a) Establishing and maintaining the panel, developing standardized methods and a risk-based screening program, collecting occurrence data, and reporting on those activities
  - b) Developing standardized analytical methods internally by the State Water Board or through external contracts or grants;
  - c) Contracts or grants to public or private external research organizations to fill research gaps; and
  - d) Other State Water Board costs associated with the implementation and administration of the program.
- 12) Requires the program provide opportunities for public participation. Specifies that participation include conducting periodic stakeholder meetings and workshops to solicit relevant information, data, suggestions, and feedback for the development and implementation of the program.
- 13) Requires the State Water Board to maintain a program internet website and make relevant research, reports, and data available to the public.
- 14) Requires the State Water Board to provide an annual program update at a regularly noticed meeting of the State Water Board.

## Background

- 1) *Regulating Water Quality.* Water quality is regulated by a number of local, state, and federal agencies. Risks to human health and the environment are managed by federal and state standards for permissible levels of certain contaminants, known as Maximum Contaminant Levels (MCLs). The State Water Board adopts MCLs for contaminants, which are health protective drinking water standards to be met by public water systems. MCLs take into account not only a contaminant's health risks but also factors such as its detectability and treatability, as well as costs of treatment.

A drinking water contaminant's MCL is required to be established at a level as close to its public health goal (PHG) as is technologically and economically feasible, placing primary emphasis on the protection of public health. A PHG, which is established by OEHHA, is the level of a contaminant in drinking water that does not pose a significant risk to health. The process for establishing a PHG for a contaminant in drinking water is very rigorous. OEHHA scientists first compile all relevant scientific information available and perform health risk assessments in which they determine the levels of the contaminant in drinking water that could be associated with various adverse

health effects. The State Water Board then goes through a lengthy, public regulatory process to develop the PHG into an MCL. The State Water Board has an MCL for about 100 chemicals, almost all of which have a PHG.

- 2) *Identifying Contaminants of Emerging Concern.* CEC are a diverse group of synthetic and naturally occurring chemicals and some microorganisms in water. The federal SDWA establishes a framework for evaluating *potential* drinking water contaminants. The US EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the federal Safe Drinking Water Act (SDWA). California conducts federally required monitoring from the federal UCMR program that can result in California establishing notification levels (NLs) and response levels (RLs) as precautionary measures for contaminants that have not yet undergone or completed the regulatory standard setting process.

When chemicals are found at concentrations greater than their NLs, certain requirements and recommendations apply. The level at which the State Water Board's Division of Drinking Water (DDW) recommends removal of a drinking water source from service is called the "response level." Since the early 1980s, NLs for 93 contaminants have been established. Of those contaminants, 40 have gone through the formal regulatory process and now have MCLs.

Currently there are 31 contaminants with NLs. In addition, another 25 contaminants have archived advisory (notification) levels. Of note, the State Water Board recently announced the lowering of its RL and NL for water systems statewide for PFOA and PFOS, stemming from monitoring required under the third UCMR in 2012. There are tens of thousands of additional chemicals and constituents that do not have an MCL or a NL and that we do not have enough information about to determine whether those constituents have a human health or environmental impact.

- 3) *Use of Science Advisory Panels.* The State Water Board has no standing science advisory bodies to address CECs, rather, panels are convened as necessary to provide recommendations on specific management questions. To date, the State Water Board has convened four science advisory panels and stood up another panel in the summer 2020 to provide recommendations on CECs in aquatic ecosystems.

In accordance with the Recycled Water Policy, in 2009 the State Water Board convened the 2010 Science Advisory Panel on CECs in Recycled Water to

provide recommendations for monitoring CEC in recycled water. A group of 6 advisors representing the dischargers, NGOs, regulatory and resource communities was established to provide stakeholder input to the process and to assist the panel members in understanding water quality issues and in gathering information. The Panel's recommendations were incorporated into a 2013 amendment to the Recycled Water Policy.

In 2017, the State Water Board reconvened this Panel to update its recommendations: the 2018 Science Advisory Panel on CECs in Recycled Water. These recommendations were incorporated in a 2018 amendment to the Recycled Water Policy. Both Panels were convened temporarily through contract/grant with the Southern California Coastal Water Research Project (SCCWRP), and were convened to comply with the requirements of the Recycled Water Policy, which requires the State Water Board to reconvene the Panel every 5 years to update its recommendations for addressing CECs in recycled water.

To provide recommendations for CEC in California waters other than recycled water, the State Water Board separately convened the 2012 Science Advisory Panel on CEC in Aquatic Ecosystems through a contract with SCCWRP. The Panel provided recommendations for monitoring and management of CEC in oceanic, brackish, and freshwaters of the State that receive discharge of treated municipal wastewater and stormwater. One more panel to mention is the 2016 Expert Panel on the Evaluation of the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse (DPR), which provided recommendations for management and monitoring of CEC in recycled water used for direct potable reuse. This Panel has completed its recommendations and is no longer active.

This past summer, the State Water Board collaborated with the Ocean Protection Council to provide a grant to SCCWRP to reconvene the Panel to update its recommendations. This reconvened Panel is tasked with answering updated management questions to address the State's changing knowledge of and approach toward CEC.

- 4) *Other States Action on CEC.* According to information provided by the sponsors, other states such as Minnesota, New York, and Arizona have ongoing programs/panels specific to CEC. The Minnesota CEC program was established in 2010 by the legislature. Housed under the Minnesota Department of Health Hazard Assessment Unit, the program is charged with investigating and communicating the exposure and potential health risk of CEC in drinking water. The program also develops health-based drinking water guidance levels.

The program is currently expanding its efforts to engage stakeholders and the public based on feedback received from its 2015 program evaluation.

Similarly, New York Drinking Water Quality Council (DWQC) was codified during the 2017-18 budget process. Housed under the New York Department of Health, the program is charged with providing science-based recommendations about emerging contaminants in drinking water to protect public health. The program recommends NLs and MCLs. The program consists of twelve representatives from government, academia, the public, and drinking water systems.

## Comments

- 1) *Purpose of Bill.* According to the author, “Constituents of Emerging Concern (CECs) are a diverse group of chemicals and microorganisms that are not currently regulated in drinking water. They can be detected in very small amounts. CECs have been found in natural water bodies and drinking water, and more are expected to be detected in the future. Over the years, CECs have received growing public attention as potential pollutants in drinking water supplies. Yet, the full extent and public health risk of their presence is not well understood. Senate Bill 230 would require the State Water Resources Control Board to establish and then maintain an ongoing, dedicated program for CECs to proactively improve the understanding of their occurrence and public health significance in drinking water sources.”
- 2) *Need for Dedicated Program.* According to the bill sponsor, “California is a couple of years behind in addressing the most prominent emerging contaminant in drinking water sources due to a lack of a certified method to detect CEC, a lack of understanding where the CEC occur, or knowledge of the public health threats.” This bill seeks to address these issues by directing the State Water Board to establish and direct an ongoing, dedicated program for CEC to proactively improve the understanding of their occurrence and public health significance in drinking water sources. SB 230 requires the State Water Board to create a Science Advisory Panel to review and provide recommendations on CEC for further action. The bill also establishes the CEC Action Fund, which could, upon appropriation by the Legislature, support costs associated with developing standardized analytical detection methods for CEC and contracts and grants to external research organizations to fill research gaps.

SB 230 is substantially similar to SB 996 (Portantino) of 2020 with some notable differences, including: the elimination of the stakeholder advisory

group in favor or a baseline public process, which provides multiple opportunities for stakeholder engagement; a more streamlined and appropriate list of duties for the Science Advisory Panel; and important clarification that the bill is not meant to limit any of the State Water Board's existing authority to act on CEC. According to the bill sponsors, these and other changes address concerns raised by stakeholders and the Administration and ensure that the State Water Board direct the CEC Program and the activities of the Science Advisory Panel. Importantly, the changes also ensure that nothing in the bill's provisions slow down current decisions and regulatory actions by the Division of Drinking Water on PFOA and PFOS.

Undoubtedly, concern over CEC have increased in recent years. The urgent challenges the state now faces due to of per- and polyfluoroalkyl substances (PFAS) contamination in drinking water, for example, illustrates the need for earlier engagement on CEC, thus, a dedicated program could makes sense. However, it is important to note that the State Water Board and OEHHA already have the statutory authority to accomplish the tasks set forth in this bill, but perhaps not the dedicated staff and funding to accomplish them.

While staff sees value in standing up a new program that is focused on CEC, the construct of the bill needs some fine-tuning. If the idea is to have the Science Advisory Panel available to the State Water Board as a resource for specific research needs, it may not be necessary to have the Panel on-call and available in perpetuity. Additionally, for a comprehensive program approach to CEC, staff would note that it could useful to broaden the scope of the bill beyond just drinking water to address environmental and public health impacts more generally.

*The Committee may wish to direct staff to work with the author, stakeholders, and State Water Board to consider broadening the scope of the CEC program beyond drinking water to include environmental and public health impacts.*

### **Related/Prior Legislation**

SB 996 (Portantino, 2020) would have required the State Water Board to establish a dedicated CEC program to support and conduct research on CEC in drinking water that may pose risks to public health. The measure was held in the Senate Environmental Quality Committee.

AB 1056 (Portantino, 2020) requires the State Water Resources Control Board (State Water Board) to establish an analytical laboratory method, by January 1,

2022, that can be used as a tool to assess the extent of per- and polyfluoroalkyl substances (PFAS) contamination in drinking water, surface water, groundwater, and wastewater. The measure was held in the Senate Environmental Quality Committee.

AB 756 (C. Garcia, Chapter 162, Statutes of 2019) authorizes the State Water Resources Control Board (State Water Board) to order one or more public water systems to monitor for per- and polyfluoroalkyl substances (PFASs) and establishes a separate customer notification process as a result of any confirmed detection.

AB 2072 (Quirk, 2018) would have required the State Water Board to establish and maintain a dedicated program to research the potential effects of CEC in water sources on human and ecosystem health. The measure was held in Assembly Appropriations Committee.

**SOURCE:** Metropolitan Water District of Southern California and the California Municipal Utilities Association

**SUPPORT:**

Association of California Water Agencies (ACWA)  
Bizfed - Los Angeles County  
California Municipal Utilities Association  
California Municipal Utilities Association (CMUA)  
Central City Association of Los Angeles  
City of Pasadena  
City of Riverside Public Utilities  
Cucamonga Valley Water District  
Eastern Municipal Water District  
Elsinore Valley Municipal Water District  
Emerald Bay Services District  
Foothill Municipal Water District  
Garden Grove Chamber of Commerce  
Inland Empire Utilities Agency  
Jurupa Community Services District  
Las Virgenes Municipal Water District  
LAX Coastal Chamber of Commerce  
Long Beach Area Chamber of Commerce  
Long Beach Board of Water Commissioners  
Manhattan Beach Chamber of Commerce  
Metropolitan Water District of Southern California  
Palos Verdes Peninsula Chamber of Commerce

Pasadena Water and Power  
Redondo Beach Chamber of Commerce  
Regional Water Authority  
South Bay Association of Chambers of Commerce  
Three Valleys Municipal Water District  
Three Valleys Municipal Water District  
Torrance Area Chamber of Commerce  
Upper San Gabriel Valley Municipal Water District  
Wateruse California  
Western Municipal Water District

**OPPOSITION:**

Clean Water Action  
Natural Resources Defense Council

**ARGUMENTS IN SUPPORT:** According to the Metropolitan Water District of Southern California and the California Municipal Utilities Association, SB 230 “would identify, evaluate, and prioritize for action CECs in drinking water sources and proactively fill in information gaps. With this program, the State Water Board would form and direct a Science Advisory Panel to help prioritize CEC actions. The program would (1) identify the highest priority CECs; (2) bridge information gaps and coordinate scientific research; (3) remove barriers and improve timeliness for action on CECs, including identifying new, cost effective treatment technologies; and (4) solicit public input. The proposed legislation would be forward-looking and not interfere with any existing regulations or programs focused on CECs, including the process underway to regulate the two most common type of PFAS chemicals. Rather, it would seek to complement those programs and incorporate their recommendations where applicable.”

**-- END --**